

**REMARKS**

Claims 1 and 2 have been amended. Support for these amendments is found in the originally filed claims. Claim 15 has been cancelled.

**Objection of the Specification**

The specification is amended to capitalize the trademarks HERCEPTIN, RITUXAN, ERBITUX and SURFZAP. Applicant has properly identified and capitalized all trademarks.

**Rejection of Claims 1-4 and 13-15 Under 35 U.S.C. § 112, First Paragraph**

Claims 1-4 and 13-15 are rejected under 35 U.S.C. § 112, first paragraph, because the Specification while being enabling for the treatment of mammary carcinoma (page 8, Figure 5A-5D), the Specification does not reasonably provide enablement for the treatment of other tumor types. Applicant respectfully disagrees.

The basis of the Examiner's rejection is that one skilled in the art would not believe that a single agent could treat all tumor types. However, the claims recite the use of combination of neutral soluble glucan with an antitumor antibody and not a single agent as that term is used in the Cecil reference. The term "antitumor antibody" reflects a general category of antibodies, even though there is a specific antibody used for each type of tumor. Neutral soluble glucans work synergistically with each antitumor antibody for a particular tumor targeted. Thus, neutral soluble glucan can be combined with a variety of antitumor antibodies that may be specific for various tumors. For this reason, equating the combination of an antitumor antibody with neutral soluble glucans is in error. Thus, the Cecil reference is not dispositive with regard to Applicant's invention.

In addition, one of skill in this particular art would expect to perform more experimentation than in many other fields and would not consider such experimentation undue. The Specification sets forth certain characteristics, such as complement activation, that the antibody must possess for it to be useful in the present invention. The inventor has determined the basic mechanism of action for the combination of neutral soluble glucan and antitumor antibodies as set forth in the claims. Thus, the Specification provides a general description of the type of antibody that works in the present invention, which in turn provides a reasonable

expectation of success. The number of candidate antibodies is described by the terms of the Specification (See page 19, line 24 to page 23, line 19) and thus do not include all antibodies but a narrowed class defined by the characteristics described. Thus, the antitumor antibodies as recited in the claims are a described class of antibodies that can be tested with simple and routine *in vitro* tests. Therefore, there is no need for extensive, undue experimentation.

The desired characteristics of the antitumor antibodies and the underlying basic mechanism of action as taught in the Specification provide sufficient guidance for a skilled artisan to develop or ascertain the type of antibodies for use with the present invention. Given the potential results if successful, the skilled artisan may not even consider antibody development to be undue. In light of the above discussion, the combination of neutral soluble glucan and an antitumor antibody could not be considered a “single agent for all tumor types” and given the guidance in the Specification would not require undue experimentation for treatment of various tumor types. In view of the foregoing, the scope of the claims is enabled.

#### **Rejection of Claims 1-4 and 13-15 Under 35 U.S.C. § 112, First Paragraph**

Claims 1-4 and 13-15 are rejected under 35 U.S.C. § 112, first paragraph, because the Examiner states the language “effective amount” is vague and indefinite. Claim 15 is cancelled. Applicant has amended independent Claim 1, thus rendering the rejection moot. Claim 13 does not contain the language “effective amount” and inclusion of this claim in the rejection must be in error. All other rejected claims are dependant on Claim 1.

Claim 2 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement due to recitation of the term “cancer vaccine.” Applicant has amended Claim 2, thus obviating the rejection.

#### **Rejection of Claims 1-4 and 13-14 Under 35 U.S.C. § 103 (a)**

Applicant notes that the Examiner indicated that the Application currently names joint inventors. This is in error, the Application only has one inventor.

Claims 1-4 and 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over James *et al.* (provided by Applicant) in view of Leyland-Jones (The Lancet, Oncology Vol. 3, March 2002).

Neither reference indicates that neutral soluble glucan act synergistically with antitumor antibodies to treat tumors as is recited in Applicant's claims. At best, the expectation would be that each component acts through separate mechanisms possibly resulting in an additive effect. Thus, the references whether considered alone or in combination do not render Applicant's invention obvious. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheung *et al.* (provided by Applicant).

Applicant has cancelled Claim 5, thus obviating the rejection.

**Information Disclosure Statement**

A Supplemental Information Disclosure Statement (SIDS) was filed on January 8, 2008. Entry of the SIDS is respectfully requested.

**CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Date: June 12, 2008